

Patent Application No. 10/614,144
Amdt. date: July 13, 2004
Response to July 1, 2004 Restriction Requirement

In the Claims:

This listing of claims replaces all prior versions and listings of the claims in this application.

1. (Original) Apparatus for casting metal strip comprising:
 - (a) a pair of casting rolls forming a nip there between;
 - (b) a pair of confining plates adjacent the ends of the casting rolls;
 - (c) an elongated metal delivery nozzle having a plurality of discrete nozzle pieces disposed along the nip end to end capable of discharging molten metal to form a casting pool supported on the casting rolls above the nip confined by the confining plates;
 - (d) nozzle supports capable of supporting the nozzle pieces defining outer nozzle ends the delivery nozzle nearest the confining plates; and
 - (e) delivery nozzle drives capable of moving the nozzle pieces defining the outer nozzle ends nearest the confining plates to control the distance between the outer nozzle ends and the confining plates.
2. (Original) The apparatus for casting metal strip as claimed in Claim 1, wherein the metal delivery nozzle drives move the nozzle supports separate from the movement of the confining plates to control the distance between the confining plates and the outer nozzle ends nearest the confining plate before casting.
3. (Original) The apparatus for casting metal strip as claimed in Claim 1, wherein the delivery nozzle drive is capable of moving the nozzle pieces nearest the confining plates to maintain a distance between the nozzle pieces defining the outer nozzle ends and the confining plate with wear of the confining plates, the outer nozzle ends or both.
4. (Original) The apparatus for casting metal strip as claimed in Claim 3 wherein the confining plates are biased by the delivery nozzle drive and said nozzle pieces defining the outer nozzle ends and the confining plates are moved together.
5. (Original) The apparatus for casting metal strip as claimed in Claim 1 comprising in addition a bias to urge the confining plates inwardly toward each other.
6. (Original) The apparatus for casting metal strip as claimed in Claim 5 wherein said bias to bias the confining plates inwardly toward each other is separate from the delivery nozzle drive.

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7. (Original) The apparatus for casting metal strip as claimed in Claim 5 wherein said bias to bias the confining plates inwardly toward each other operates with the delivery nozzle drive.
8. (Original) The apparatus for casting metal strip as claimed in claim 1, wherein the controlled distance is maintained is on the order of 15 millimeters or less.
9. (Original) The apparatus for casting metal strip as claimed in claim 1 wherein the control distance is maintained between about 7 and 9 millimeters.
10. (Withdrawn) A method for casting metal strip comprising the steps of:
 - (a) assembling a pair of casting rolls to form a nip between the casting rolls and a pair of confining plates adjacent the ends of the casting rolls pool,
 - (b) assembling an elongated metal delivery nozzle with a plurality of nozzle pieces disposed along the nip capable of discharging molten metal to form a casting pool supported on the casting rolls above the nip confined by the confining plates, and
 - (c) moving the nozzle pieces defining the outer nozzle ends of the delivery nozzle so as to control the distance between the confining plates and the outer nozzle ends of the nozzle pieces nearest the confining plates.
11. (Withdrawn) The method for casting metal strip as set forth in claim 10, wherein the step of moving the nozzle pieces nearest the confining plates comprises controlling the distance between outer nozzle ends of said nozzle pieces and the confining plate with wear of the confining plates, the outer nozzle ends or both, and wherein the distances are controlled separately from the positioning of the confining plates.
12. (Withdrawn) The method for casting metal strip as set forth in claim 10, wherein the step of moving the nozzle pieces nearest the confining plates is done together with movement of the confining plates with wear and thermal expansion of the confining plates and the outer nozzle ends.
13. (Original) The apparatus for casting metal strip as claimed in claim 10, wherein the controlled distance is maintained on the order of 15 millimeters or less.
14. (Original) The apparatus for casting metal strip as claimed in claim 1 wherein the control distance is maintained between about 7 and 9 millimeters.